

REMARKS/ARGUMENTS

Claims 1 - 14 are pending in the application.

Claim 1 has been amended to include the feature that the cylinder is adapted to be manufactured by diecasting, which is a consequence of the preceding feature that the connecting flange 16 is inclined relative to the longitudinal axis 17 of the cylinder 2 by an angle that opens in a direction toward the crankcase 4. Support for this added feature can be found in the specification of the present application, on page 1, the last two lines. This feature is further supported by the language "from its mold", which can be found on page 2, line 20.

Claim 2 has been amended to indicate that the at least one transfer channel 10, 12, which is a loop channel, has a curved section in an external wall portion thereof, wherein such curved section is formed entirely in the cover 15, 35, 45. Support for this feature can be found on page 2 of the specification, lines 14 – 18.

The present invention, as defined in amended claim 1, relates to a two-cycle engine, the cylinder of which is adapted to be manufactured by a diecasting process. The cylinder is provided with transfer channels that, in predetermined positions of the piston, connect the crankcase of the engine with the combustion chamber. In order to be able to easily manufacture the transfer channels by diecasting, the transfer channels are closed off toward the outer side of the cylinder by a cover. This means that only those sections of the transfer channel that connect the transfer channel with the combustion chamber or the crankcase need to be embodied as channels in the cylinder. The central section of the transfer channel is closed off toward the outer side of the cylinder by the cover. Only the inner wall of the transfer channel needs to be formed on the cylinder.

In order to be able to manufacture the connection of the transfer channel to the combustion chamber with a core in the diecasting process, the walls of this transfer channel section must extend toward one another in a direction toward the interior of the cylinder so that the core, via which the opening is produced, can be removed. As a result, strict limits are placed on the configuration of the transfer channel. In this regard, the present inventors have recognized that the transfer channels can have a configuration more favorable to flow if the connecting flange for the cover is inclined relative to the longitudinal axis of the cylinder by an angle that opens in the direction toward the crankcase. As a consequence of the incline of the connecting flange, that section of the transfer channel that is on the combustion chamber side, and which is to be formed in the cylinder, can be shortened. By forming the transfer channel as a loop channel, the curved section of the external wall of the transfer channel can be formed entirely in the cover.

CLAIM REJECTIONS – 35 USC § 103

The Examiner has rejected the claims as being unpatentable over Webb in view of Radel. Pursuant to Webb, the connecting flange for the cover of the transfer channels is disposed perpendicular to the longitudinal axis of the cylinder. As shown in Figs. 5 and 6, the transfer channels extend essentially perpendicular to the longitudinal axis of the cylinder. No loop is provided, and Webb also provides no suggestion for how loop channels could be easily manufactured by diecasting. Furthermore, as recognized by the Examiner, Webb does not show an inclination of the connecting flange for the cover of the transfer channels, as required by Applicants' amended claim 1.

For the lack of an inclined flange surface, the Examiner has cited the Radel reference. However, although an inclined flange surface is shown by Radel, no cover is provided. Rather, as indicated in column 7, lines 54 – 59, the flange has a continuous opening and is therefore in the form of a chamber-like conduit segment.

As shown in Fig. 2 of Radel, the transfer channels or overflow lines 24a and 24b are closed off relative to the outer side of the cylinder. No cover is provided. The transfer channel 22 is also delimited toward the outer side of the cylinder by the cylinder. However, an opening or channel 28 opens into the transfer channel 22. No cover that closes off the transfer channel on the outer side of the cylinder is provided. Therefore, already on this basis no *prima facie* case of obviousness has been established since the required motivation to combine the references is not present (see MPEP section 2143.01).

Furthermore, just as with Webb, Radel also provides no suggestion as to how to configure a cylinder that is adapted to be manufactured by diecasting. It is respectfully submitted that Radel provides no teaching or suggestion for the disposition of a cover on a transfer channel, nor for the inclination of a connecting flange for the cover. Therefore, since neither Webb nor Radel teach an inclined connecting flange for a cover, no *prima facie* obviousness of Applicants' amended claim 1 has been established since these references, either taken alone or in combination with one another, do not teach or suggest all of Applicants' claim limitations, as required by MPEP section 2143.03.

It is furthermore respectfully submitted that the subject matter of Applicants' amended claim 2 cannot be suggested by the cited combination of references. In particular, in Webb the transfer channels extend parallel to the longitudinal axis of

the cylinder, and no loop channels are taught or suggested. Nor does Radel disclose loop channels. Thus, the cited references can provide no suggestions for forming the curved section in the external wall portion of the transfer channel entirely in the cover, so that the loop channel can be manufactured by diecasting.

In view of the forgoing discussion, Applicants respectfully request reconsideration of all of pending claims 1 – 14. In addition, should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call from him in order to be able to discuss any outstanding issues and to expedite placement of the application into condition for allowance.

Respectfully submitted,



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